Advantage Controls — Manual

# SKIDSENS
# Fouling Sensor
## *by Neosens*

## Quick User Manual
## Installation Guide

Advantage Controls
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Advantage Controls

## Specifications

**Electrical:**

- Input: 36 VDC @ 60mA
- Output: 4-20mA (500 Ω)

**Environment:**

- Ambient temperature - 0 to 180°F (without PVC adapter)
- Relative humidity - 0 to 100%
- Pressure - 80 PSI Max

**Fouling Monitoring:** 0-1 mm (0 to 0.039 in)

**Accuracy:** 1% of Full scale

**Material:** PVC (body) & 316L SS (sensor tip)

**Connection:**

- Sensors are supplied with a 1” (2.54 cm) slip and a 1” MNPT PVC quick release adaptor. The PVC adaptor has a maximum temperature rating of 125°F.
- Peak sensor body has 1/2” straight BMPT

**Shipping Weight:** 4 lbs (1.814 kg)

**Sensor Length:** 9.375” (23.8 cm)
**Insertion Depth:** Approx. 3.375” (8.57 cm)

## Installation Notes

1. Install the sensor into flowing water for 30 minutes to allow the sensor to reach a temperature equilibrium.

2. Sensor must have a minimum of 3.5 gpm flow across it.

3. The analog output is active and referenced to +36Vdc.

4. If connected to a monitor with other 4-20mA inputs, they must be isolated from each other or this input. Contact Advantage Controls if a loop isolator is required.

5. After the sensor has been installed and powered for 2 hours confirm that the output is a 4mA signal.

### Testing Sensor

If the sensor is giving a 3mA output after being installed for at least 2 hours in the minimum flow rate of 3.5 gpm the following steps can be followed to test and reset the sensor's operation.

1. Power OFF the Skidsens

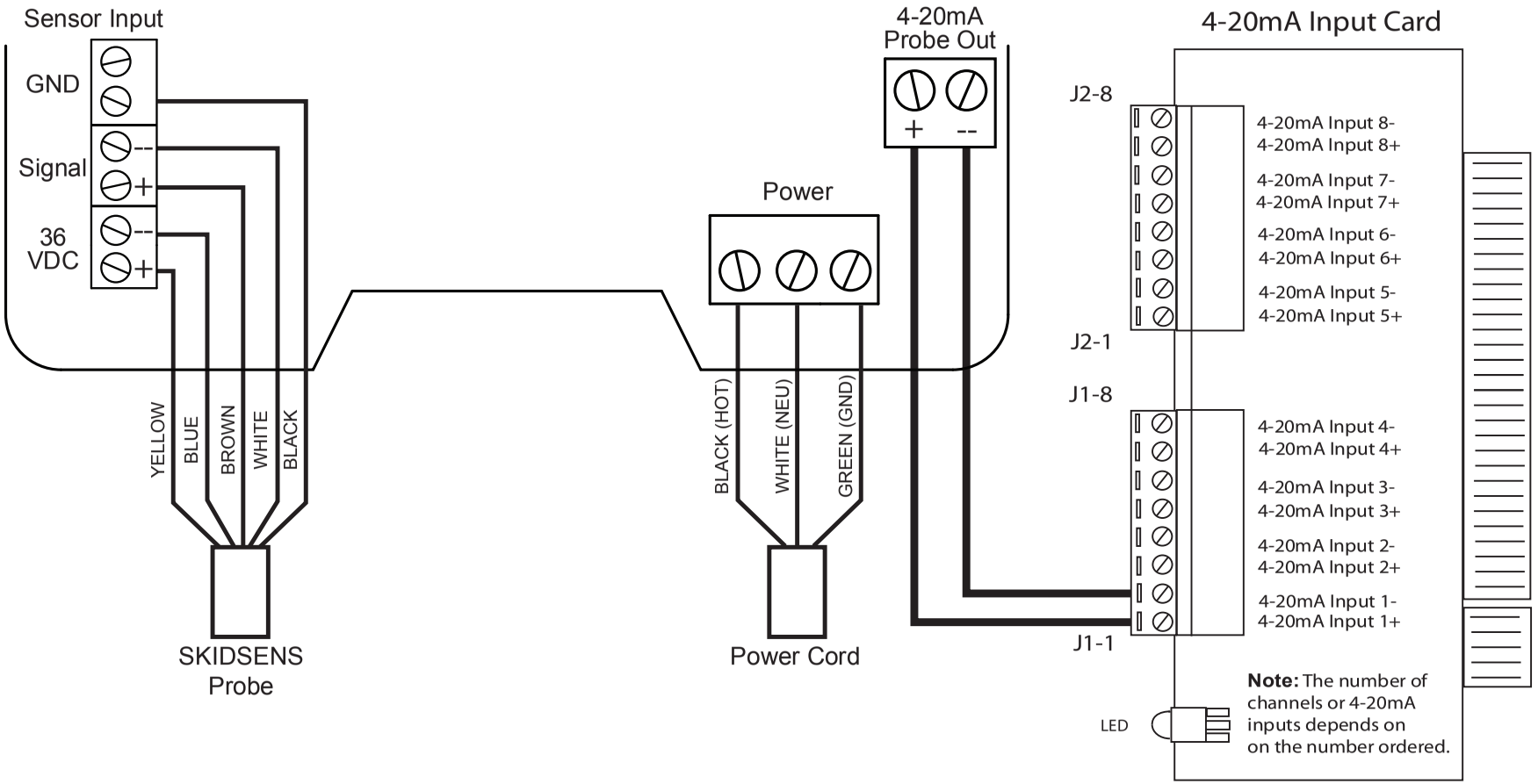
2. Assuming the Skidsens was maintained in water with the required flow rate (>3.5gpm), power ON the Skidsens and check the analog output reading during the first 20 seconds, as the probe will be in test mode

    a. For the first 10 seconds, the probe should display a 4mA signal

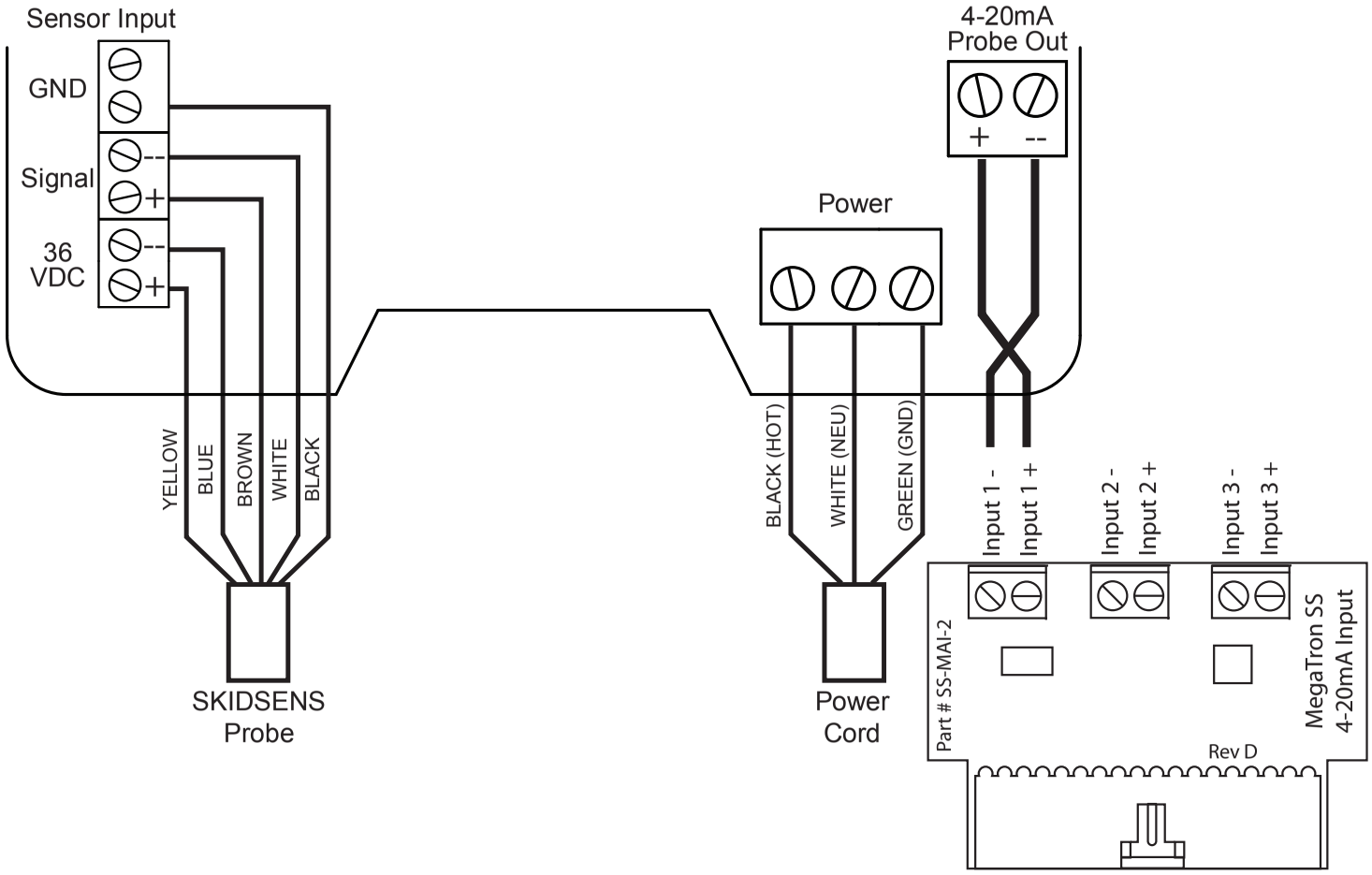
    b. For the next 10 seconds, the probe should display a 20mA signal

3. After those initial 20 seconds, the probe will go to operational mode and should return to a 4mA signal, or slightly above assuming the sensor has no fouling.

# Wiring Diagram for MegaTron Connection



# Wiring Diagram for MegaTron SS Connection



# MegaTron Menus • Customize Setup

**Step 1:**
First, push the **SET UP RUN** button to get this screen. From here push the **CUSTOMIZE** (Button 4) to go to the next screen.

```
          >HOME SETUP<

SETPOINTS                DATE/TIME
CALIBRATION              CONFIGURE
TIMERS                     HISTORY
CUSTOMIZE              WATER METER
ALARMS                      RELAYS
```

**Step 2:**
This is the Customize Screen. From here push the **mA IN** (Button 9) to go to the next screen.

```
          >CUSTOMIZE<

UNIT NAME
RELAY NAMES                NOTEPAD
SYS NAME
INPUT NAMES                  mA IN
                          RUN SCREEN
```

**Step 3:**
This is the mA IN screen. From here push **INPUT 1 OR 2** (Button 1 or 2) then go to the next screen.

```
      >CUSTOMIZE mA INPUTS<

INPUT 1
INPUT 2
```

**Step 4:**
This is the Customize mA Input 1 Screen. From here push the **NAME** (Button 1) to go to the next screen.

```
      >CUSTOMIZE mA INPUT 1<

NAME      FOULING
UNITS     mm
NUMBER    x.xxx
```

**Step 5:**
This is the Customize mA Name screen. From here enter the name of the mA Input (i.e. FOULING) by using the Arrow buttons. Then press **ENTER** to confirm and return to the previous screen.

```
      >CUSTOMIZE mA INPUT 1<

NAME      FOULING
UNI
NUM
   mA INPUT 1 NAME
           [FOULING        ]
   USE ARROW KEYS TO CHANGE, PRESS
   ENTER TO ACCEPT OR BACK TO ERASE
```

**Step 6:**
From here push the **UNITS** (Button 2) to go to the next screen.

```
      >CUSTOMIZE mA INPUT 1<

NAME      FOULING
UNITS     mm
NUMBER    x.xxx
```

**Step 7:**
This is the Customize mA Units screen. From here select the type of units (i.e. mm) by using the Arrow buttons. Then press **ENTER** to confirm and return to the previous screen.

```
      >CUSTOMIZE mA INPUT 1<

NAME      FOULING
UNI
NUM
   TYPE OF UNITS
                -> mm
   USE UP/DOWN KEYS TO CHANGE
   PRESS ENTER TO ACCEPT
```

**Step 8:**
From here push the **NUMBER** (Button 3) to go to the next screen.

```
      >CUSTOMIZE mA INPUT 1<

NAME      FOULING
UNITS     mm
NUMBER    x.xxx
```

**Step 9:**
This is the Customize mA Number Format screen. From here select the number format (i.e. x.xxx) by using the Arrow buttons. Then press **ENTER** to confirm and **HOME** to return to the Home screen.

```
      >CUSTOMIZE mA INPUT 1<

NAME      FOULING
UNI
NUM
   NUMBER FORMAT
              -> X.XXX
   USE UP/DOWN KEYS TO CHANGE
   PRESS ENTER TO ACCEPT
```

# MegaTron Menus • Calibration Setup

**Step 1:**
First, push the **SET UP RUN** button to get this screen. From here push the **CALIBRATION** (Button 2) to go to the next screen.

```
          >HOME SETUP<

SETPOINTS                DATE/TIME
CALIBRATION              CONFIGURE
TIMERS                     HISTORY
CUSTOMIZE              WATER METER
ALARMS                       RELAYS
```

**Step 2:**
This is the Calibration Screen. From here push the **mA IN** (Button 7) to go to the next screen.

```
          >CALIBRATION<

SENSORS                      mA OUT
                             mA IN
```

**Step 3:**
This is the Curren Loop Calibration screen. From here push **INPUT 1 OR 2** (Button 1 or 2) then go to the next screen.

```
    >CURRENT LOOP CALIBRATION<

INPUT 1
INPUT 2
```

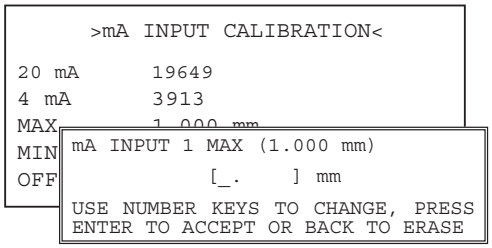
**Step 4:**
This is the mA Input Calibration Screen. From here choose the **MAX or MIN** (Button 3 and 4) to go to the next screen.

```
      >mA INPUT CALIBRATION<

20 mA      19649
4 mA       3913
MAX        1.000 mm
MIN        0.000 mm
OFFSET     Enabled
```

**Step 5:**
This is the mA Input MAX screen. From here adjust the MAX reading by using the number keys (MAX should be set to 1.000 mm and MIN should be set to 0.000 mm). Then press **ENTER** to confirm and return to the previous screen.

**Note:** All other mA Input Calibration settings can be adjusted in the same fashion beginning at Step 4.



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